



ATTACHMENT A Remarks

This application now includes claims 1-14 and 19 through 35.

The final requirement to elect certain species and subspecies has been noted. However, for reasons set forth below, it is respectfully submitted that generic claims, including independent claims 1 and 22, should be held allowable, in which case the requirement to elect species would be withdrawn.

As explained in the specification, and as further explained in the Amendment filed March 7, 2005, the present invention relates to distracting adjacent vertebrae away from each other and/or retaining separated vertebrae in such separated position. As further explained in the specification, such distraction/retention requires that anchor screws be screwed into the adjacent vertebrae. Instruments must then be provided for interacting with these anchor screws to separate the vertebrae or retain them apart. It has been known heretofore to engage these anchor screws with arms, the opposite ends of which engage a connecting member for moving the arms and hence also the anchor screws and hence also the adjacent vertebrae apart or retain them apart.

However, as further explained in the specification, known instruments have had the disadvantage that the engagement between the arms and the anchor screws was not sufficiently secure to assure that the anchor screws would maintain their original alignment. When such screws would become misaligned, they would cause the instrument to jam, after which the instrument could not successfully perform its intended function of separating the vertebrae by a predetermined amount and/or accurately retaining them in that selected spaced part position.

In one prior arrangement, as described in the specification, the arms included tubes which encircled the anchor pins. However, this arrangement was relatively loose and as a result, the anchor screws and tubes would become misaligned, causing the above noted disadvantages.

The present invention has overcome the disadvantages of the prior art by providing a secure engagement between the arms and the anchor screws, sufficiently secure that as the arms are moved apart, the anchor screws maintain their original alignment.

New independent claim 22 positively recites this inventive arrangement by providing the anchor screws and a frame member with arms which have an engaging structure for operatively engaging the anchor screws and comprising a retaining structure to essentially prevent movement of the anchor screws relative to the engaging structure. Dependent claims 23-35 recite more specific features of the present invention.

Independent claim 1 also recites specific features of the present invention including a frame member having arms which include a tube encircling the screws and a retaining structure for securing each of the anchor screws to its respective tube. Dependent claims 2-14 and 19-21 recite additional features of the present invention.

Each of independent claims 1 and 22 recite inventive features of the present invention which distinguish in a patentable sense over both of the applied references, taken alone or together.

Independent claims 1 and 22 have been rejected under § 103 as unpatentable over Bolger '096 in view of Martin Benlloch '661. For the following reasons, it is

respectfully submitted that this rejection is improper and should be withdrawn and all claims now present in this application allowed.

Bolger '096 is no more relevant than the prior art discussed in paragraph [0004] of the present specification. As discussed in the specification, a problem existed with respect to this prior art which was not understood or appreciated. Specifically, while the anchoring rods appeared to be held tightly by the frames, in fact there was a problem that loose engagement, meaning in this case less than very secure engagement, would cause the anchoring screws to become misaligned. This in turn caused the instrument to jam after which it could not successfully perform its intended function of separating the adjacent vertebrae by a predetermined amount and then positively and accurately retaining them in the selected appropriate spaced apart position. The prior art as described in the specification, not realizing the problem, did not appreciate the need for correcting any such problem. Indeed, in Bolger '096 exposed threaded ends of the anchoring bolts remote from the vertebrae are plainly evident in Figures 11-13 and yet no suggestion whatsoever is made to utilize same to positively secure the anchoring screws to the frame to eliminate the above described problem of the prior art. In other words, it is absolutely clear that Bolger '096 in no way even appreciated the problem and therefore this reference, by illustrating the same prior art as discussed in the specification, with the same problem, not only fails to teach the present invention but teaches away from the present invention. Given the fact that Bolger '096 shows the environment of which the present invention is an improvement, and since Bolger '096 does not remotely show or suggest, and in fact arguably teaches away from the present invention, the considerable gap between Bolger '096 and the present invention cannot

properly be closed by a secondary reference such as Martin Benlloch '661 which clearly relates to a totally different device in a totally different environment. True, Martin Benlloch '661 relates to spinal implants, but the similarity ends there, leaving these references too far distant from each other in structural terms to properly conclude that Martin Benlloch '661 provides a teaching for modifying Bolger '096 to arrive at the present invention.

The Examiner cannot rely on similar words when the context of those words are so remote from each other. A "coupling means" could describe glue and a nut and bolt, but that would not make them sufficiently related to each other wherein one would teach the other.

Here, in Martin Benlloch '661, there is clearly no teaching whatsoever for distracting vertebrae from each other. Rather, this reference is so remote from the environment of the present invention that it would not be much different if the Examiner simply cited a screw on any physical object having a retaining nut. In Martin Benlloch '661, it is true that the screw 6 enters a vertebrae, but it is clearly not for the purpose of distracting anything, and in fact in the position shown in Figure 3, entering posteriorly, it is doubtful that the screw could ever perform any kind of distracting function. The intermediate parts shown in the figures are intended to attach this screw to the connecting rod 2, allowing the rod 2 to be secured for producing a spinal implant. There is no alignment function as between the screw 6 and other screws 6 associated with a connecting rod 2. Indeed, the function of the retaining cap 9 in Martin Benlloch '661 is not so much to secure the screw 6 at all, as much as it is to secure and immobilize the

intermediate elements including connecting elements 4 and 5 with ball socket 15, all leading to the connecting rod 2.

In summary therefore, Applicant discovered a problem which was not even appreciated, discovery of the problem being part of the invention. Applicant appreciated that in a known instrument, as described in the specification and as shown in Bolger '096, a problem existed which was not being solved, namely alignment of the anchoring screws. Applicant appreciated that the need for better alignment of the anchoring screws translated into a better securing of the anchoring screws which was the new and unobvious improvement of the present invention. The secondary reference to Martin Benlloch '661 clearly does not recognize the problem to which the present invention is directed, and being a totally different unrelated structure, cannot possibly provide a teaching of either the problem to which the present invention is directed or its inventive solution.

The specification has been corrected and replacement drawings are included herewith in order to correct the duplication in the drawings.

In view of the above, it is respectfully submitted that this application is now in condition for allowance, which action is promptly and respectfully solicited.

END REMARKS



ATTACHMENT C

Amendments to the Drawings

The attached Replacement sheets of drawings include the following changes:

- in Figure 1, numeral 25 has been changed to numeral 23;
- in Figure 11, numeral 25a has been changed to numeral 23a, and numeral 25b has been changed to numeral 23b; and
- in Figure 12, numeral 25c has been changed to numeral 23c.

The Replacement sheets replace the original or previously filed corresponding sheets having the same figures.